

Reviewing the evidence in the proper management of headache in primary care.

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Abstract: The primary aim in this specific review was to discuss the classification of headache, highlight the prevention and as well emphasize the diagnostic process in primary care and evidence on the influence of diagnosis on management. Comprehensive search was performed using following databases; PubMed, and EMBASE, for studies discussing the roles of family doctors in management of headache in primary care all studies published up to September, 2017. Headache is one of the most common symptoms in the general population. Migraine and tension type headaches account for the most common. They have different background, however can be easily managed nowadays with the help of general practitioners. Headache treatment does need an individualized approach and depending on the diagnose need treatment, sometimes there may be situations that warrant more specialist input.

 **Introduction:**

Headache is a usual problem, with a range in regularity as well as intensity from moderate or unusual incidents that go away spontaneously to serious and regular disabling headache. It is a typical discussion in primary care, and also the frustrating bulk of patients are not related to secondary care [1]. Headache belongs to one of the most usual factors patients look for aid from a family doctor. The approximated lifetime occurrence of headache is 66%: 14% to 16% for migraine, 46% to 78% for tension-type headache, and 0.1% to 0.3% for cluster headache [2], [3]. In Canada, a minimum of 2.6 million grown-up females and also virtually 1 million males experience a migraine [4]. Concerning 90% of migraine, headache victims report mild to serious pain, with 75% reporting damaged function and also 33% needing bed rest throughout an assault [5]. The financial impacts of a headache are additionally significant. It is approximated that headache represent 20% of job lacks [6].

Substantial amounts of over the counter drugs are considered headache problems, as well as therapy, is commonly suboptimal [7]. Although many migraine patients utilize acute therapy to ease their headaches, a significant variety of individuals that may gain from prophylactic

treatment do not get it greater than 1 in 4 migraine headaches are prospects for preventative treatment [5].

In the last years there have actually been significant growths in the knowing of headache syndromes as well as in opportunities for therapy. Specialists recommend that the therapy of headache should be tailored to the medical diagnosis as well as, if this is attained, management will certainly be a lot more efficient [8]. It has actually been recommended that specific medical diagnosis is a patient's right. The Task Force of the International Headache Society (IHS) have actually recommended a 'Headache Sufferers' Bill of Rights', [9] the initial factor which is that the headache patient can understand his/her headache medical diagnosis as exactly as feasible[10].

The primary aim in this specific review was to discuss the classification of headache, highlight the prevention and as well emphasize the diagnostic process in primary care and evidence on the influence of diagnosis on management.

Methodology:

Comprehensive search was performed using following databases; PubMed, and EMBASE, for studies discussing the roles of family doctors in management of headache in primary care all studies published up to September, 2017. moreover, studies references were scanned for more relevant articles to be use in our review.

Discussion:

- **Classification of Headache Disorders**

The following is a brief listing of the headache problems that are involved in the 2nd edition of The Classification of Headache Disorders of the International Headache society- ICHD2 (2004) [11].

Table1.Classification of headache Disorders[11].

Primary headache disorders:	Secondary headache disorders:
Migraine	Headache attributed to head and/or neck trauma
Tension-type headache	Headache attributed to cranial or cervical vascular disorder
Cluster headache and other trigeminal autonomic cephalalgias	Headache attributed to non-vascular intracranial disorder
Other primary headaches	Headache attributed to a substance or its withdrawal
Cranial Neuralgias and facial pains:	Headache attributed to infection
Cranial neuralgias and central causes of facial pain	Headache attributed to disorder of homeoeostasis
Other headache, cranial neuralgia central, or primary facial pain	Headache or facial pain attributed to disorder of cranium, neck, eyes, ears, nose, sinuses, teeth, mouth, or other facial or cranial structures

- **Migraine**

Migraine headache is usual, under-diagnosed, and also treatable [6]. Migraine headache has a top occurrence in the 3rd decade of life, as well as decreases with age. It can be existing at the extremes old [1]. Patients with lower socio-economic sources are more probable to be under-diagnosed and also under-treated.

Patients with migraine headache usually offer a background of a repeating, independent headache showing up in strikes lasting 4 to 72 hrs otherwise managed. Common strikes get to modest or extreme strength, are pulsating, are intensified by regular exercise, and also are related to nausea, throwing up, photophobia, phonophobia, and also olfactophobia [12].

Diagnostic testing

Diagnostic screening is of restricted worth in patients with a reputable medical diagnosis of migraine. Concomitant infection or related dehydration can be detected scientifically. Relying on the option of therapeutic agent, maternity might should be omitted prior to launching treatment. In the lack of a worrying modification in a patient's common chronic headache pattern, emerging neuroimaging is not likely to be handy.

Treatment of migraine

A big range of therapy choices are readily available for acute migraine headache, numerous with FDA authorization and also several that are applied off-label. The range of alternatives is broad. Numerous emergency situation specialists pick a preferred, which they count on for a lot of situations. The suitable migraine headache representative would certainly soothe the discomfort as well as linked symptoms of migraine headache quickly and also totally, without triggering extreme, incapacitating, or regular negative effects.

Regular intravenous fluids could be of advantage to patients with an acute migraine headache, though this has actually not been reputable. For patients with consistent gastro-intestinal symptoms, intravenous rehydration is not likely to be hazardous. Generally, parenteral therapy is favoured due to the fact that gastric tension, as well as postponed absorption of medicine, happen throughout an acute migraine headache strike [13].

Dihydroergotamine. Ergotamine has actually been applied for the therapy of a migraine headache for greater than 100 years. Its hydrogenated by-product, dihydroergotamine has actually been offered for over 50 years as a parenteral alternative as well as is much better endured compared to its forerunner [14]. Though mostly changed by the triptans due to the latter's higher selectivity for

serotonin receptors, dihydroergotamine could still play a helpful second-line duty for some ED patients.

The anti-emetic dopamine-antagonists. A raising proof base shows that this varied course of medicines is one of the most proper first-line therapy of an acute migraine in the ED setup, though mechanistic information for this class's efficiency is still doing not have. Anti-migraine activity is most likely moderated via dopamine-receptor blockade, albeit this has actually not yet been shown [15].

Non-steroidal anti-inflammatory drugs. Non-steroidal anti-inflammatory medicines are a mainstay of an outpatient migraine headache treatment, especially for less serious migraine headache assaults. The parenteral non-steroidal ketorolac has actually shown efficiency for the acute therapy of a migraine headache [16].

Opioids. Opioids, specifically meperidine, are still one of the most extensively taken drugs for the therapy of an acute migraine headache [17]. Standard reviews of opioid usage for a migraine headache consist of the following: reduced effectiveness, high rate of adverse results, boosted the rate of reappearance of a migraine headache within the short-term, raised the rate of ED regression, as well as organization with chronic migraine headache, though certain information for all these is underwhelming.

Migraine-preventive treatment [18]

The fundamental concepts of abortive therapy of migraine headache are as complies with. Preventative treatment needs to be used in those patients in which migraine headache has a high frequency, seriousness, significant influence, and also in those that have actually not replied to

acute care. Apply the least quantity of the drug with the least negative effects to gain control of the signs up until precautionary therapy can be minimized or quit. Start treatment with medicines that have the highest degree of effectiveness. Raise the dosage gradually up until professional advantages are accomplished without unfavorable occasions. Offer each medication an appropriate test of at the very least 2 to 3 months. Select a medication that will certainly deal with the coexistent problem as well as migraine headache. When employing prophylactics, straight unique focus on females that are expectant or wish to become pregnant. Precautionary drugs might have teratogenic results [18].

Beta-blockers. Not all beta-blockers work in a migraine headache. Those that are effective consist of propranolol, atenolol, and also metoprolol. Beta-blockers are contraindicated in patients with asthma, chronic obstructive lung condition, insulin-dependent diabetes mellitus, heart block or failing, or peripheral vascular condition. When recommending beta-blockers, begin with a reduced dosage and also titrate upwards as needed. As soon as the assaults are regulated, the medicine needs to be tapered.

Calcium-channel blockers. Of the readily available representatives in this team, flunarizine is most generally applied for migraine headache treatment. Flunarizine works as a very first line prophylactic as well as can be begun in a smaller sized dosage of 5 mg during the night as well as progressively enhanced to 10 mg daily. This will certainly assist stay clear of sedation. Flunarizine is to be prevented in patients with depression. Calcium-channel blockers are contraindicated in patients with hypotension, heart disease, or arrhythmia.

Non-Pharmacologic Therapy. Nonpharmacologic therapy might be incorporated into preventative treatment to accomplish extra-scientific improvement for migraine headache reduction. Behavior therapies are identified right into 3 wide classifications: relaxation training, psychophysiological

feedback treatment, and also cognitive-behavioural training (stress-management training).

Physical therapy consists of acupuncture, cervical adjustment, and also mobilization treatment.

- **Tension-type headache**

Though typical in the basic populace, tension-type headache is hardly ever serious as well as just occasionally triggers an ED browse through [19] This headache is specified by the lack of migraine headache's particular attributes, such as nausea or vomiting, throwing up, serious strength, or triggering practical impairment [6] The discomfort is commonly reciprocal, pushing or tightening up in high quality and also of moderate to modest strength. Typically, the discomfort does not get worse with regular physical activity. There is some debate about whether this headache is indeed a distinctive disease or just a milder type of a migraine headache. Opposing this common pathophysiology disagreement stands out epidemiological information in comparison to a migraine headache, tension-type headache is an illness of greater socio-economic demographics [19]. Representing a combined pathophysiology is a common reaction to much of the very same medicines that work against a migraine headache, such as triptans, anti-emetics, and also non-steroidals [20].

Standard management of a tension-type headache requires non-steroidals, which have a strong history of effectiveness in this disease.

- **Cluster type of headache**

Cluster is an uncommon headache [21] and also an irregular reason for ED discussion, especially when compared with a migraine headache or a tension-type headache.

Typically an illness of males [22], this disease generally starts in between the ages of 20 and also 40 years [23]. One of the most typical kind is an episodic cluster, where headaches take place in

teams or collections, recently for months and also are adhered to by headache-free durations or remissions lasting one month or longer. Around 10% of patients with a cluster headache either do not experience reductions or have reductions lasting less than 1 month. In these situations, the term "chronic cluster headache" is used.

The discomfort of a cluster headache is usually independent as well as the side influenced typically corresponds to every single assault as well as every cluster duration (the period of time including consecutive assaults). Primarily positioned around the eye as well as temporal areas, the discomfort could transmit right into the ipsilateral neck, ear, cheek, jaw, top as well as lower teeth, as well as nose [24]. The last locations, if entailed, could represent unneeded dental and also sinus examinations as well as therapies.

ED-based therapy must be guided by soothing the acute assault and also terminating the whole cluster of headaches. Abortive agents for a cluster headache have to function rapidly and also successfully. For a lot of patients experiencing an acute cluster assault, using oxygen breathing is the therapy of selection considering that it is quickly provided, has an outstanding safety and security account, as well as functions quickly [24].

Abortive treatment

To terminate the acute attack[18].

SC sumatriptan: Given as $\frac{1}{2}$ cc = 6 mg SC injection. The injection is offered in a preloaded autoinjector style which the patient himself could provide. If the injection is not offered, sumatriptan can be offered as a nasal spray consisting of 20 mg each puff.

Oxygen: Inhalation of 100% oxygen at 6-7 L/min for 15 min is effective in 60% cases. Higher flow rate (12 L/min) may benefit some patients.

DHE: Dihydroergotamine injection or nasal spray is also effective.

Preventive treatment of cluster type headache

To reduce the frequency and severity of the attacks[18].

Verapamil: Pretreatment ECG is vital as well as this medication ought to be escaped together with beta-blockers. It is given up a beginning dosage of 120 mg long acting daily boosted to 3 times daily. Irregular bowel movements is the primary negative effects.

Lithium: Given in a beginning dosage of 300 mg to be slowly boosted to a max of 900 mg. Pre-check of thyroid and also kidney account is required as well as lithium degrees have to be kept track of occasionally.

Steroids: Prednisolone in a dose of 60 mg daily to start with followed by gradual tapering. Normal precautions as while administering steroids.

Ergotamine: Useful as adjunctive therapy. For reasons still unknown, ergotamine when used in CH on a daily basis does not usually lead to MOH.

- **Principles of diagnosis in primary care**

While mindful categorisation of headache kind has evident benefits at research study or expert degree, its relevance to primary care degree is suspicious. Among the systems whereby primary care runs in boosting wellness condition is associated with its gatekeeper duty [25].The impact of a filter at primary care degree has actually been evaluated as safety for patients in minimizing

both unneeded treatments and also unfavourable impacts. Nonetheless, a repercussion of this filtering system is that physicians at various degrees see various populace teams and also they have a varying point of views, abilities, and also duties. Marinker has actually contrasted the analysis functions of the General Practitioner as well as the expert [26]. The duty of the expert is to minimize unpredictability, to discover opportunity, and also to marginalise mistake.

The duty of the General Practitioner is to approve unpredictability, to check out chance, and also to marginalise threat. The have to marginalise threat is most likely to be a concern for GPs. Although the epidemiological proof is that additional headache is most typically owing to excess alcohol, medicine abuse, high temperature, as well as conditions of the nose and also sinuses, [27] the should dismiss possibly significant however unusual problems such as haemorrhage as well as hatred will certainly affect a non-specialist's activities. Broad groups of medical diagnosis, such as 'major' or 'non-serious', could suffice, and also in these conditions picking the ideal strategy, such as recommendation, could be more crucial compared to the exact medical diagnosis. The analysis method explained by professionals is an extensive account of history taking as well as assessment needed to get to a particular medical diagnosis. Nonetheless, this strategy does not fit the truth of a basic technique assessment. Undoubtedly, the analysis strategies of the majority of medical professionals can be identified as 'pattern acknowledgment' or 'hypothetico-deductive'. In addition, the analysis result in primary care is as most likely to be a method of healing test, or 'see as well as wait', since a particular medical diagnosis.

Conclusion:

Headache is one of the most common symptoms in the general population. Migraine and tension type headaches account for the most common. They have different background, however can be easily managed nowadays with the help of general practitioners. Headache treatment does need an individualized approach and depending on the diagnose need treatment, sometimes there may be situations that warrant more specialist input.

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